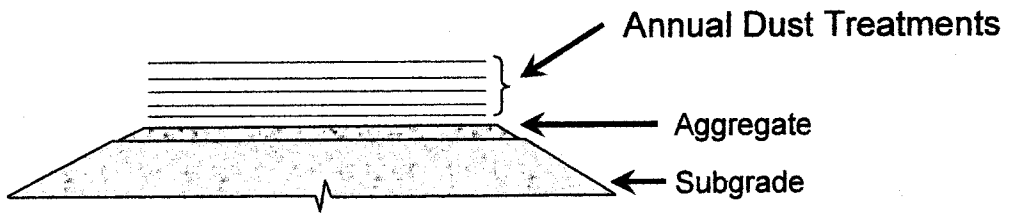
Dust Treatments vs Stabilization

- Gravel suitability
  - Run chloride retention prior to stabilization
- Annual dust treatment
  - Pro: More chloride at road surface
    Good for light traffic
  - Con: Greater long term cost
- Stabilization with light treatment every 3 to 5 yrs
  - Pro: Less dusting, raveling, wash boarding
    Good for heavy haul roads – saves money
    Less blading and rock replacement
    Greater public satisfaction
  - Con: High initial cost.
    Only suitable for good gravel gradations

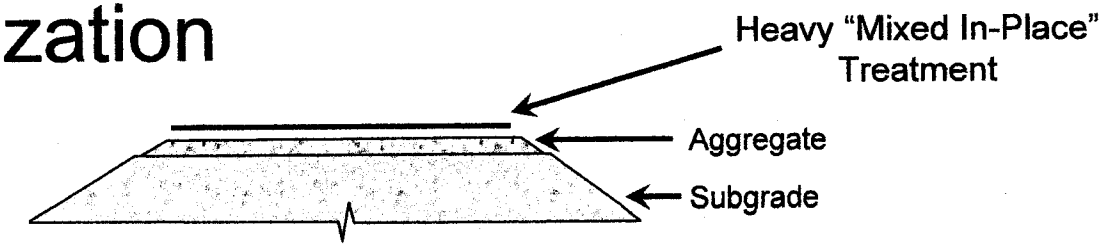
Chloride Treatment Techniques

- Purpose
  - Reduce dust
  - Reduce rock resource depletion
  - Reduce costs (less blading & rock replacement)

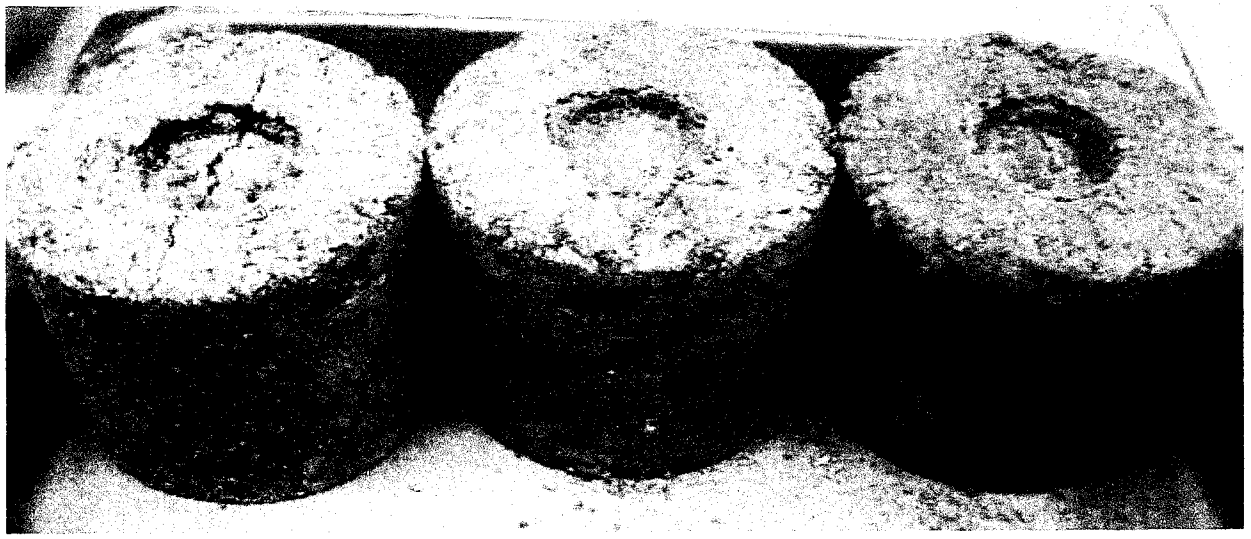
- Annual Dust Treatments



- Heavy Stabilization Treatment



Chloride Retention & Estimated Re-Blading Difficulty



50:50 Rap/Gravel Blend after CBR and Split Tensile Tests

Samples were stabilized with 2% Calcium Chloride

Reblading is easier if chloride & bentonite additives used

Samples on right have highest density & chloride retention